

## REMARKS

The present amendment is submitted in conjunction with a Request for Continued Examination (RCE) and in response to the final Office Action dated March 9, 2009, which set a three-month period for response. Filed herewith is a Request for a Three-month Extension of Time, making this response due by September 9, 2009.

Claims 1 and 4-15 are pending in this application.

In the final Office Action, the drawings were objected to under 35 CFR 1.83(a) as not showing every feature of the invention specified in the claims. Claim 3 was objected to for informalities. Claim 2 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claim 1 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1, 3, and 8-11 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2002/0021052 to Asao. Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Asao in view of U.S. Patent No. 6,476,535 to Oohashi et al. Claims 4-5 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Asao in view of U.S. Patent No. 6,424,072 to Armiroli et al. Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Asao in view of Fudono et al. Claim 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Asao in view of U.S. Patent No. 5,747,913 to Amlee et al. Claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Asao in view of U.S. 2002/0096965 to Ikeda et al.

Turning first to the objection to the drawings, with regard to Fig. 5, on page 9, lines 15-24, the connection regarding  $L_M$ , P and the tangent T is described in greater detail. The arrow with reference numeral  $L_M$  and P designates the object designated as the point I Fig. 5. This object is the center line  $L_M$  which here can be recognized as point P. Since the arrow designates the object in which the center line  $L_M$  is parallel to the rotational axis 65 in the view and the center line  $L_M$  therefore is perceived as point P, this illustration was selected.

Filed herewith is amended sheet 3/3, in which now two separate arrows are directed to the center line  $L_M$  and the point P. In addition, also the tangent T is designated with reference numeral T.

The Examiner continues to ask for clarification regarding where "m begins". The chamfer 68 has a length l, which is defined in the edge direction. In addition, the chamfer 68 has a center section m, which extends in the same direction (that is, the edge direction). The chamfer 68 has a center M, which centrally divides the length l. The center section m is arranged symmetrically to the center M. This means that the residual sections of length on both sides of the center section m are the same size. The center section m and the two lateral edge sections therefore form the entire length l of the chamfer 68 (see specification, paragraph bridging pages 8-9).

According to this description of the center section m, the chamfer 68 has a length l, which is defined in the edge direction. The chamfer 68 also has a center portion m, which extends in the same direction. The chamfer 68 has a center M, which divides it in the middle in terms of its length l. The center portion m is

located symmetrically to the center M. Amended claim 1 defined that center portion m amounts to 8/10 of the length of the chamfer (80%) oriented in the edge direction. Likewise, this center portion m defines a transition plane delineated by the pole root 53 and the freely extending part of the claw pole 28, 29. Thus, this directly provides where the center M of the center section m begins. In addition, it also provides indirectly where m begins based on the not-specifically designated limits of the chamfer 68. If a chamfer 68 has a length l (Fig. 4) and the center portion m amounts to 8/10 (that is eight tenths or 80%) of the length l of the chamber 68 oriented in the edge direction, this means then with a center portion m, which is arranged symmetrically to the center m, clearly the center section – based on the not specifically named limits of a chamber 68 – respectively begin after 1/10 (one tenth or 10%) of the entire length l of the chamfer 68. With this definition recited in claim 1, the size of the center section m and therewith also its "start" and end likewise can be clearly determined.

With reference to page 3, lower section, of the Office Action, it is correct that M is a "center line" of the chamfer 68. The term "cut out" used in the Office Action is not used in claim 1. Thus, it is not clear what is meant by the Examiner here. The beginning of the definition of the position of the center portion m is the center portion m in the present version of claim 1. As the term states, the center portion m is in the center of the chamfer 68.

Claim 1 has been amended to clarify this feature by defining that the "chamfer (68) has a center M, wherein the center M centrally divides a length (l) of said chamfer (68), wherein the chamfer (68) has a center portion m in an edge

*direction that intersects a transition plane (59) which demarcates the pole root (53) and the freely projecting part of the claw pole (28 and 29, respectively), wherein the center portion m is arranged symmetrically relative to the center M'.*

With this definition of the center portion m, hereby its length amounts to 8/10 of the length of the chamfer 68 oriented in the edge direction, it is very clearly recited that the ends of the center portion m original from its center M.

The Applicant's further submit that the Examiner's position that Fig. 4 does not correctly show the invention is without merit. Fig. 4 shows the following:

- the center portion m of the chamfer 68 is shown in the edge direction;
- the center portion m is shown in the center of the chamfer 68;
- the length of the chamber 68 is designated with "l";
- a defined transition plane 59 is shown;
- a pole root 53 is shown;
- a freely projection part of the claw pole 28 is shown;
- how the transition plane 59 delimits the pole root 53 and the freely projecting part of the claw pole 28 is illustrated;
- the center portion m with a length of 8/10 of the length of the chamfer 68 oriented in the edge direction is shown;
- the center M is shown, which centrally divides the length l oriented in the edge direction; and
- the center portion m arranged symmetrically to the center M is shown.

In the Office Action on page 3, last lines, the Examiner state that m would begin in the "intersection point" of the transition plane 59. Actually, the center portion m here describes here the transition plane 59.

Regarding the Examiner's position raised in Sections 6 and 7 of the final rejection, the Applicants do not understand the grounds for the Examiner's objection. As defined in the presently amended and new claims, as well as in the prior version of claim 1, a plane is defined in the claw poles 28, 29, which is perpendicular to the pivot axis 65. A half width  $B_K$  of the claw pole 28, 29 defines a point P and a tangent inscribed in this point P in the plane arranged vertically relative to the pivot axis 65.

The sketch from Fig. 7 provided in the Office Action shows a perspective view. Since this is a perspective view, Fig. 7 shows a perspective view of the pivot axis. Thus, the figure from Asao designated as Fig. 7 also does not show a plane that is arranged perpendicular to the pivot axis. The angle alpha, which is indicated in the figure, lies only in the plane of the sheet of paper on which the Office Action was printed. This "paper plane" is not vertical to the pivot axis, so that the angle that is measured in Fig. 7 does NOT correspond to the angle alpha, which is defined in the independent claims of the present application.

Regarding the objection raised in Section 10, claim 3 has been amended accordingly.

Regarding Section 12, it is believed that the amendments to claim 1 address these objections.

With regard to the first and second grounds for rejection raised under Section 14, it is believed that the amendment to claim 1 addresses this point, as do the argument set forth above.

Claim 1 was amended to delete "this" with regard to "said point (P)".

Regarding the objection to the language of claim 1 "wherein the claw pole has..., defines a point (P), and a tangent (T)...", the Applicants disagree that this language is unclear. This limitation recites that in a plane of the claw pole 28, 29 oriented vertically to the pivot axis 65, a point P is defined. This point P is provided by the position of the half width  $B_K$  on the cylindrical surface 43 in the plane of the claw pole 28, 29 that is vertical to the pivot axis 65. Changes to this language are not believed to be necessary.

Turning now to the substantive rejection of the claims, in particular, the reference to Asao, numerous differences exist between Asao and the present invention. Claim 1 defines a pole root and a freely projecting part of the claw pole. Both are separated by a transition plane 59 with regard to the sections of the claw poles 28, 29. The freely projecting part of the claw pole is the part of the "core members" 21, 22 with regard to Asao, which extends freely over the field winding 13. The pole root is the part with reference to Fig. 13, designated as element 21 as the "pole core member", which joins at the freely projecting part of the claw pole 21 to the right.

From this clear definition and the transition plane 59 originated therefrom according to the present invention and as defined in claim 1, it cannot be implied that the surfaces designated as 103 and 100 in the Office Action define the

transition plane. A plane through the sectional circumferential edge between the two surfaces 103, 100 can be contemplated; however, this imaginary plane does not correspond to the transition plane between a freely projecting part of the claw pole 53, 53 and the pole root. This imaginary plane is a plane between the shoulder 103 and another part of the claw pole. The position of the imaginary plane is not defined as is the transition plane of claim 1. The width  $B_K$  in contrast is defined as being the width of a claw pole 28, 29 in the circumferential direction. Fig. 7 does not show this type of width.

In addition, Asao does not disclose the feature of claim 1 of an angle of inclination  $\alpha$  that is between 15° and 25°. As already explained above, the analysis of this feature in the Office Action is erroneous. Fig. 7 does not show a plane that is oriented vertically to the pivot axis of the shaft 6, so that Fig. 7 also does not show the angle as defined in the amended claims.

With regard to claim 8, the same issue applies as with claim 1. Also here, the Examiner argues that the phase 101 is a plane that is oriented parallel to the pivot axis direction. Again, such an orientation cannot be seen in the figures.

Claim 2, which was objected to as depending from and contradicting claim 1, has been rewritten in independent form as new claim 14.

Original claim 1 on which claim 2 depended defines on the one hand that the transition plane is formed by the pole root and the freely projecting part, and thereby forms a demarcation between these two parts. In addition, the center portion M divides the transition plane 59. The transition plane in Oohashi as shown in Fig. 3 shows where the freely projecting part of the claw pole begins

and as a result is delimited by the pole root. This position can be seen clearly in Fig. 3, lower view, where the freely projecting part passes into the not-freely projecting part. This transition exists where the freely projecting part changes its direction. As provided in the Office Action, the entire chamfer and its length  $l$  is outside of the transition plane (see the figure in the Office Action, for example).

Therefore, the combination of Asao and Oohashi, cited in support of the rejection of claim 2, would not lead to the present invention, since Asao does not teach the recited angle range and Oohashi does not teach that the chamfer divides/intersects the transition plane.

Likewise, the Applicants submit that the combination of Asao and Armiroli would not lead the practitioner to the present invention as defined in claims 4, 5, and 12. Armiroli designates the chamfer as "14", and a "groove" as 20, which has an L-profile. However, this groove with an L-profile does not have the properties of a chamfer and therefore should not to be viewed as a chamfer.

The same is true with regard to claim 5.

Regarding claim 12, Armiroli's Figs. 1 and 6 show that the depth of the chamfer would be between 0.3 and 2 mm. The only suggestion on these dimensions can be found in column 4, lines 18-20. Again, however, these dimensions relate to the "grooves 20", which according to the Armiroli description are not chamfers. The chamfers are designated with reference numeral 14 in this reference and are something else. These cannot be equated to the chamfers of the present invention since these chamfers do not intersect a transition plane.

Regarding the rejections of claims 6 and 7, again, since Asao does not disclose the above features of claim 1, upon which claims 6 and 7 depend, a combination of Asao with Fuduno or Ikeda would not lead to the present invention.

The application in its amended state is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



Michael J. Striker  
Attorney for Applicant(s)  
Reg. No. 27233  
103 East Neck Road  
Huntington, New York 11743  
631-549-4700